

**Poulton** *Research Project*

# Awakening the Dead

by

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## **Why do it?**

Many people ask why archaeologists excavate human remains. Part of this ‘why’ means ‘for what purpose?’. The other part, for people with religious or moral concerns, means ‘why are archaeologists disturbing human burials?’. The answers to these questions are related of course but not necessarily in a straightforward manner. There is no doubt that if nothing could be learned from burials, then we would excavate considerably fewer. Nevertheless, the practice would not cease. The location of many burial sites has been lost over the years and is often only rediscovered by activities such as redevelopment or road building. In these cases, the human remains are under threat and need to be recovered and re-buried rather than pulverised by the bulldozer. At somewhere like Poulton, where the land is not under threat, the biggest reason to excavate human remains is that they were discovered whilst pursuing other archaeological investigations. For example, whilst excavating the extent of a Roman ditch, we came across a human burial. Now we have a dilemma. Do we ignore the burial and try to ‘dig around it’ (thus leaving it exposed to the elements)? Do we cover it up again (and thereby lose our Roman feature)? In practice, we carefully and respectfully excavate the burial and then return to our original archaeological objectives.

Having disturbed the bones though, there does seem little further harm or disrespect in examining them to see what we can find out about the people to whom those bones once belonged. When this work is complete, the remains are reburied with due reverence and ceremony in the Christian tradition.

Let us look at those ideas further. We will illustrate them by describing how we excavate skeletons at the Poulton Chapel site and finish by saying what we have discovered about those skeletons and the people they represent.

## **The law**

To excavate any human remains, you need a licence from the Home Office. Normally the Police are not involved or interested once they know the remains are not recent. In addition, if you are excavating in consecrated ground, you need the permission of the religious body concerned. At Poulton, we knew from the outset that we were dealing with a medieval chapel site so we were likely to encounter human remains. The ground is deconsecrated so we do not have to involve the Church, but ever since 1995 Poulton has had (and still has) a Home Office licence to excavate human remains.

## **First find your grave**

How do we find the grave? Well, at Poulton, it is not exactly difficult! There is a considerable amount of ‘loose’ human bone just under the surface. Most of this is the result of the disturbance from ploughing but some of it is caused by the re-use of graves (we will come back to this point later). A moderate amount of careful trowelling will usually reveal a grave cut and/or fill. When a grave (or other type of hole) is dug in the ground and refilled, both the edge of the hole (the **cut**), and the redeposited material (the **fill**), remain clear to the archaeologically trained eye for centuries. Differences in colour and/or soil texture (often quite subtle) reveal the outline of the grave (if undisturbed) long before you see any bones. See if you can see the outline of the head end of the grave in the photograph below. (We said the differences were subtle!).

That works well where the burial is undisturbed and on its own. Where the burial is disturbed, for whatever reason (including another burial), the cut and the fill may be so indistinct that they are ‘invisible’. The first you may know about finding a human burial is when your trowel hits bone.

Having discovered a burial, what do we do now? The first thing is stop digging!



The second is consult with the site director. Do we really want to excavate this grave or is it sufficient to record its location and excavate somewhere else? To save this piece coming to a premature end, let us assume that the site director says excavate it.

### Show us your bones

If the grave is isolated and undisturbed, the next step is to trowel the whole area carefully (removing as little soil as possible) until the full extent of the grave becomes visible. Now we have to do one of the 'boring bits'. Before we excavate the grave, we need to measure and record the co-ordinates of the extent of the grave (with respect to the site grid) and the height above mean sea level. We do this so that we know precisely where the grave is in three dimensions. Having got that chore out of the way, we may now start to excavate the grave.

Carefully trowelling away the grave fill (and sieving everything we remove), we will eventually come down on to the bones themselves. Now is the time to start using more delicate excavation tools such as leaf trowels, cocktail sticks, brushes or anything else non-metallic to remove carefully all the soil around the skeleton. Eventually, after some hours of work, we will have a fully exposed skeleton ready for recording and lifting.

Again, we need to record the physical layout of the skeleton. We record the grid

coordinates and height of the skull, pelvis and feet. Sometimes we will 'plan' the skeleton, that is, draw a scale plan on tracing paper.

Finally, we photograph the skeleton complete with a 'photo-board' (recording information about the skeleton) and some 'yardsticks' to give a scale. Below is an example of such a photograph of a fully excavated skeleton shortly before lifting.

Once all the excavating and recording is complete, we can get on with lifting and bagging the skeleton. Each



part of the skeleton, that is skull, arms, chest, pelvis, legs, etc. is bagged according to a pre-determined scheme. The scheme itself varies from site to site but one thing they all have in common is keeping the

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'handed' bones (that is, left and right arms, legs, feet and hands) separate. Distinguishing between a left and right 'funny' bone (humerus) or thighbone (femur) later is reasonably easy; for many of the smaller bones (for example, finger or toe bones), it is very difficult. Better to put them into marked bags when you know exactly where they came from.

After all the bones have been lifted, bagged and removed for safe keeping, we can gently trowel at the bottom of the grave until we have removed and sieved all the remaining grave fill. We may want to keep 'environmental samples' of the fill immediately below the skeleton. These samples can be analysed later for organic remains that may give us useful information about the individual (for example, from food remains and kidney stones) and/or the environment at the time of burial (for example, from pollen and snail shells).

As a final task, we need to plan the empty grave to record its size, shape and contours.

### **After the excavation**

What happens next? Well, that depends very much on the funding and resources available to the excavation and the number of skeletons it has. A full osteo-archaeological examination, including dating, is going to cost hundreds of pounds; for example, a <sup>14</sup>Carbon dating costs about £250. For a site like Poulton with about a hundred skeletons (and rising), that is out of the question. However, with the help of post-graduate students and keen amateurs, we have at least measured and recorded the basic information from each skeleton: the sex, height and age at death. How do we do that?

### **Is it a boy or a girl?**

The main things we look at to tell the sex of a skeleton are the skull and pelvis. Small but recognisable differences in the skull, such as the shape of the brow or lower jaw, give us **indicators** to the sex of the skeleton. Similarly with the pelvis, although as the bones most closely

associated with the anatomical differences between males and females, these indicators are often more reliable than those of the skull. However, all this depends on having most of the skeleton available (not often true at Poulton). In addition, these features are **qualitative**, not **quantitative** measurements. Sometimes you just have to record the sex as indeterminate (that is, not enough material to come to any conclusion) or ambiguous (that is, some of the indicators suggest it is male whilst others suggest it is female). Oh, and none of this works for subadults, that is, people below the age of about 18. The differences between male and female skeletons only begin to appear at maturity.

### **How tall were they?**

We estimate the height (again for adults only) from the length of the long bones. These are the three bones in the arm (the humerus, radius and ulna) and their counterparts in the leg (the femur, tibia and fibula). Where we have them, we measure each bone from each side of the body using an osteometric board. This is rather like a foot-measuring gauge in a shoe shop but longer and narrower. We record the length of each bone and then use various published formulae to produce an estimated height. The results are not precise since individuals can vary a great deal from the average. The true height could be several centimetres shorter or longer than the estimate.

### **How old were they?**

The most useful indicator of the age at death is the teeth. The age at which teeth grow and erupt, for milk (deciduous) and adult (permanent) teeth, is well documented. We can get a good estimate of the age of subadults by noting the development of their teeth (when we have them) and comparing it against charts.

For adult skeletons, where tooth development is complete, we use the amount of wear of the teeth. At best, it only gives the broad categories of young adult (18–25), mature adult (26–45), and older adult (over 45). There are some other techniques used

elsewhere to determine the age of adult skeletons. Unfortunately, these rely on bones that are often not well preserved at Poulton.

In young people (under 21 or so), the ends of various bones (the epiphyses) are not connected directly to their shafts but attached by cartilage. This is so that parts of the bone can grow at different rates. As growth stops, the parts of the bone fuse together (epiphyseal fusion). Fortunately, the age at which the fusion of different bones takes place varies. We can estimate the age by noting which bones are fused and which are not. This technique is most useful for people between the ages of 10–25, particularly so if we do not have the teeth.

### How did they die?

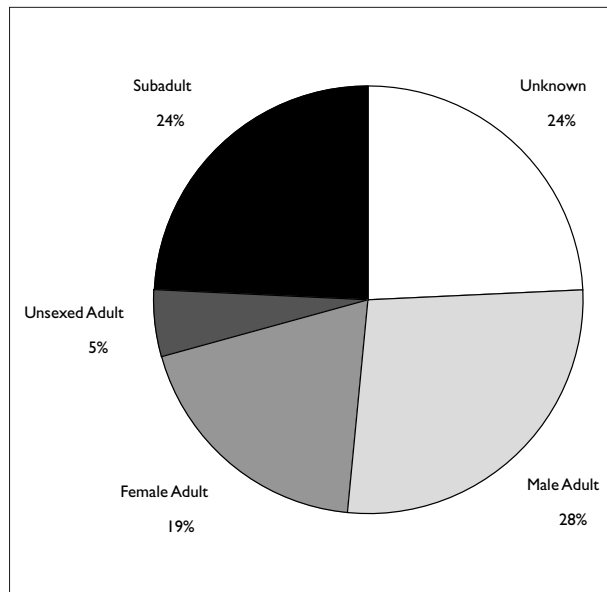
Alas, the skeleton seldom answers that question for us. Unless the person concerned suffered a major and fatal injury, for example, from a battle or accident, most causes of death leave no trace on the bones. Common fatal illnesses, such as some forms of cancer or heart attack, do not affect the bones. Some long-term illnesses, such as arthritis, leprosy or syphilis do show in the bones and we are always on the lookout for them.

### What can we say about them?

At Poulton, we have done all of the above excavation and analysis nearly one hundred times. What does that tell us about the people buried at Poulton? Rather boringly and apart from some notable exceptions, they were a typical medieval population. The pie chart shows the make up of the 99 skeletons excavated since 1995.

### Their health

Most of the skeletons are “robust”, suggesting they were born of stock used to hard physical labour. The bones show signs of “wear and tear” caused by plenty

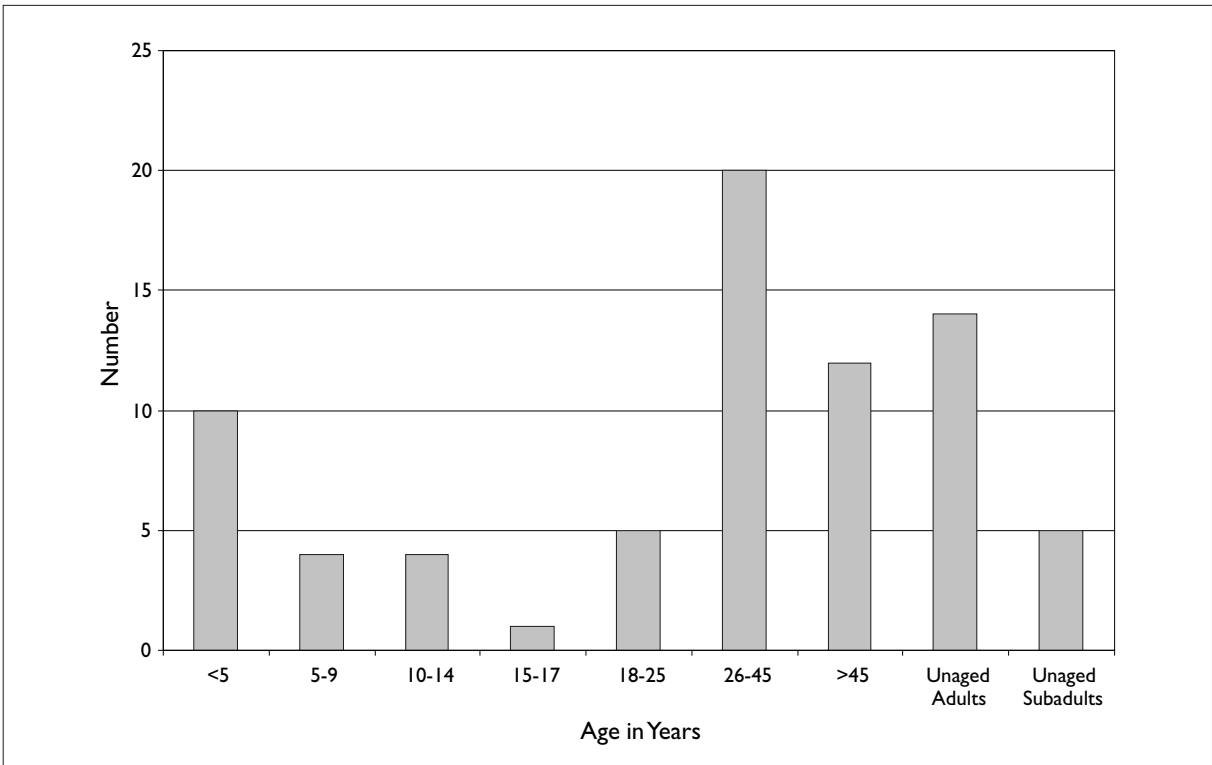


of physical activity that supports this view. If they survived early childhood, most seemed to live well into what we would now call middle age.

Many of them had rotten teeth (literally). There is plenty of evidence for dental wear, abscesses and calculus (a build-up of a chalky material around where the tooth goes into the gum). This suggests poor dental hygiene. However, dental decay (caries) is less common than you might expect, possibly because refined sugar was not available then. Some had no teeth at all but had clearly survived to good age (remember no false teeth in those days). This often leads to them developing a characteristic ‘witches’ chin’. Others seem to suffer from a form of genetic dental disorder. This is especially interesting since it may allow us identify related skeletons.

### Their ages

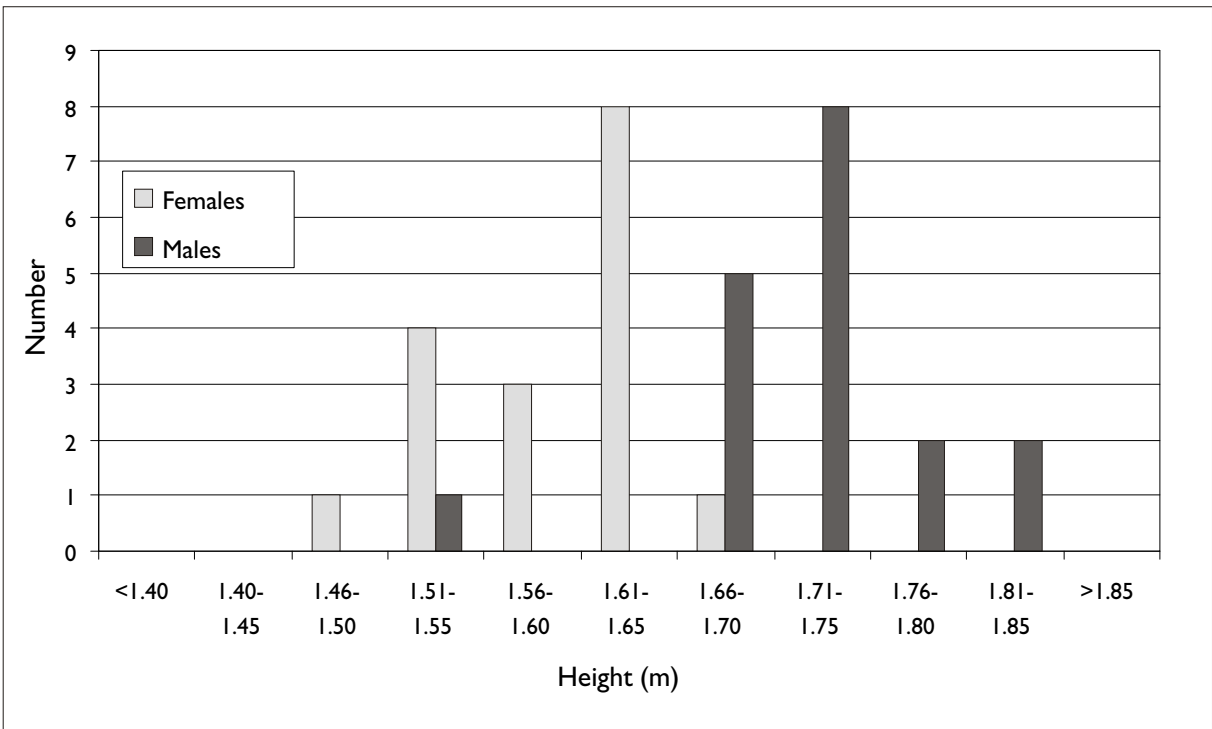
The graph below shows the age at death for those skeletons where we could determine it. You can see the high number of infant deaths (sadly typical of the medieval era) and the significant number of individuals who had clearly survived into what would then be regarded as old age.



**Their heights**

The Poulton individuals would not have appeared too out of place in the 21<sup>st</sup> century. The tallest female was 1.66m (5' 5") and the shortest was 1.50m (4' 11"). For males, the figures are 1.82m (6' 0") and 1.55m (5' 1"). The average height for females was 1.59m (5' 3") and for males, it

was 1.72m (5' 8"). Apart from one stunted chap letting the side down, there is very little overlap between the heights of males and females. If you like your data graphically, you will find it below.



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### **Their religion and burial rites**

As the site is that of a medieval chapel, you will not be surprised to learn that all the burials found so far are Christian. They are all aligned East–West, with the head at the West end. Well, that is not strictly true. They **are** aligned parallel to the East–West axis of the chapel. However, the chapel itself is skewed some 15° from true East–West; this is not uncommon for medieval churches.

One or two burials provided evidence of nails that might be from a coffin. In all the others, the body was laid straight into the ground, probably covered in a simple shroud. The number of shroud pins that we have found supports this idea.

We found very few personal items with the burials, just a belt buckle with one and an item of clothing decoration in another. This is just as we would expect for Christian burials.

### **What next?**

As we write, about half the skeletons and other human bones excavated so far are still carefully boxed away in storage. However, shortly, we will take the material away for reburial at Mount St. Bernard's Abbey in Leicestershire. There they will rejoin all the other skeletal material from Poulton.

We feel this is particularly appropriate. The chapel was originally part of the medieval Cistercian monastery at Poulton and Mount St. Bernard's is the last remaining Cistercian abbey in the U.K.

We always remind ourselves that it is a privilege and honour to be allowed to excavate and examine the remains of another human being. It is our duty to rebury them in the Christian manner and environment in which they expected to stay when they were first interred in the cold clay of Poulton.

